

CLAIMS

1 What is claimed is:

- 1 1. A method for profiling an executable hardware model, comprising the steps of:
 - 2 (a) selecting a plurality of profiling functions of a profiling process;
 - 3 (b) preprocessing an application having application functions targeted for
 - 4 implementation in reconfigurable logic for inserting calls to the profiling
 - 5 functions;
 - 6 (c) executing the application; and
 - 7 (d) generating a profile based on the profiling functions called during execution of
 - 8 the application.
- 1 2. A method as recited in claim 1, wherein the profile includes at least one of a
- 2 time taken by each application function, a number of calls to each application
- 3 function, and a call graph for illustrating calls between functions.
- 1 3. A method as recited in claim 1, wherein the profile includes at least one of
- 2 dynamic control flow and memory transfers.
- 1 4. A method as recited in claim 1, wherein the application is permitted to
- 2 interoperate with an arbitrary external library.
- 1 5. A method as recited in claim 1, wherein the application is written in a C
- 2 programming language.
- 1 6. A computer program product for profiling an executable hardware model,
- 2 comprising the steps of:
 - 3 (a) computer code for selecting a plurality of profiling functions of a profiling
 - 4 process;

5 (b) computer code for preprocessing an application having application functions
6 targeted for implementation in reconfigurable logic for inserting calls to the
7 profiling functions;
8 (c) computer code for executing the application; and
9 (d) computer code for generating a profile based on the profiling functions called
10 during execution of the application.

1 7. A computer program product as recited in claim 6, wherein the profile includes
2 at least one of a time taken by each application function, a number of calls to
3 each application function, and a call graph for illustrating calls between
4 functions.

1 8. A computer program product as recited in claim 6, wherein the profile includes
2 at least one of dynamic control flow and memory transfers.

1 9. A computer program product as recited in claim 6, wherein the application is
2 permitted to interoperate with an arbitrary external library.

1 10. A computer program product as recited in claim 6, wherein the application is
2 written in a C programming language.

1 11. A system for profiling an executable hardware model, comprising the steps of:
2 (a) logic for selecting a plurality of profiling functions of a profiling process;
3 (b) logic for preprocessing an application having application functions targeted for
4 implementation in reconfigurable logic for inserting calls to the profiling
5 functions;
6 (c) logic for executing the application; and
7 (d) logic for generating a profile based on the profiling functions called during
8 execution of the application.

- 1 12. A system as recited in claim 11, wherein the profile includes at least one of a
- 2 time taken by each application function, a number of calls to each application
- 3 function, and a call graph for illustrating calls between functions.

- 1 13. A system as recited in claim 11, wherein the profile includes at least one of
- 2 dynamic control flow and memory transfers.

- 1 14. A system as recited in claim 11, wherein the application is permitted to
- 2 interoperate with an arbitrary external library.

- 1 15. A system as recited in claim 11, wherein the application is written in a C
- 2 programming language.